UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/942,130	08/29/2001	Robert McClure	DGI-105-A	6581

7590 05/05/2005

Philip R. Warn
WARN, BURGESS & HOFFMANN, P.C.
P.O. BOX 70098
ROCHESTER HILLS, MI 48307

EXAMINER	
HUYNH, KIM T	
ART UNIT	**PAPER NUMBER**
2112	

DATE MAILED: 05/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/942,130	MCCLURE ET AL.	
	Examiner	Art Unit	
	Kim T. Huynh	2112	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 February 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2,3 and 10-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *2,3 and 10-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 August 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. In view of the Appeal Brief filed on 2/14/05, PROSECUTION IS HEREBY REOPENED.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Robinson et al. (US Patent 6,647,323) in view of Seki et al. (US Patent 6,591,186)

As per claim 2, Robinson discloses a protocol adapter for transferring diagnostic signals between in-vehicle networks and a computer, said adapter comprising:

- Circuitry (fig.1, 12) for transferring the signals between the in-vehicle networks and the computer for a plurality of different protocols, col.1, line 59-col.2, line 39 said circuitry including a communication link for transferring the signals for the plurality of protocols; and (col.2, lines 21-35), (col.3, lines 25-44)
- A device for indicating that signals are being transferred between the adapter and the computer on the communication link,(col.3, lines 15-18) said device also indicating which of the plurality of protocols is being used. (col.2, lines 36-55)

Although Robinson discloses the communication link for a plurality of different protocols but not explicitly discloses the RS232 bus. However, Seki discloses the vehicle display device is connected to the navigation unit through a serial communication line such as an RS232 cable. (col.4, lines 30-46)

It would have been obvious to one having ordinary skills in the art at the time the invention was made to incorporate Seki's teaching into Robinson's system with the same well known standard purposed for communication link between devices.

4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Robinson et al. (US Patent 6,647,323) in view of Seki et al. (US Patent 6,591,186) and further in view of Abudayyeh et al. (US Patent 6,081,858)

As per claim 3, Robinson discloses all the limitations as above except wherein the device includes at least one LED to visually indicate activity on the RS232 bus between the adapter and the computer. However, Abudayyeh discloses sensor circuit 206 detects a data transfer activity on bus, it generates a pulse and outputs such pulse in a signal to LED transform circuit. Upon receiving the signal generated by activity sensor circuit, LED regulates the waveform in accordance to the provide the regulated signal to LED circuit for display. (col.4, line 61-col.5, line 13)

It would have been obvious to one having ordinary skills in the art at the time the invention was made to incorporate Abudayyeh's teaching into Robinson's system so as to reduce the flickering rate of the LED circuit so that the effectiveness of the visual effect intended.

5. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Robinson et al. (US Patent 6,647,323) in view of Seki et al. (US Patent 6,591,186) and further in view of Abudayyeh et al. (US Patent 6,081,858) and further in view of Chaloux (US Patent 5,764,156)

As per claim 10, Robinson discloses all the limitations as above except wherein the at least one LED is a plurality of LEDs for indicating which of the plurality of protocols is being used at any given time. However, Chaloux discloses a counter counts the number of cycles in the difference signal during each pulse and outputs a logic signal one of lines S, M and L. The decoder includes logic for energizing the LED when both S and M pulses are detected. The microcontroller

provides a communication protocol selector which selects a series of protocols from a protocol memory for controlling the frequency generator and frequency switching control setting the conditions used in the protocol analyzer. The protocol analyzer identifies identification signals to a display. (col.4, lines 26-61) The protocol analyzer comprises circuitry for detecting response signal levels and durations and employs criteria for identifying a type of signal. (col.5, lines 14-18)

It would have been obvious to one having ordinary skills in the art at the time the invention was made to incorporate Chaloux's teaching into Robinson's system so as to provide an easy-to-use device for detecting and identifying the type of protocols. (col.1,lines 61-63)

As per claim 11, Chaloux does not explicitly disclose wherein the plurality of LEDs is 8 LEDs. However, Chaloux discloses four types of signaling protocols. In addition, Chaloux discloses the device is capable of recognizing new models as they become available, the protocol memory is replaceable by replacing a memory chip. (col.5, lines 34-40). Therefore, it would have been obvious to one of ordinary skill in the art at the invention was made to have an additional LEDs (ie 8 LEDs as claimed) in system so as to expand various numbers of protocols in use.

6. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Robinson et al. (US Patent 6,647,323) in view of Seki et al. (US Patent 6,591,186) and further in view of Abudayyeh et al. (US Patent 6,081,858),

further in view of Chaloux (US Patent 5,764,156) and further in view of Stroth et al. (Pub No US20020039026)

Robinson discloses all the limitations as above except wherein the plurality of LEDs include at least one dual-color LED. However, Stroth discloses that it was known to use dual color LEDs to indicate different test result in test device. [0094]

It would have been obvious to one having ordinary skills in the art at the time the invention was made to incorporate Stroth's teaching into Robison's system in order to display additional information when conducting a test.

Response to Appeal Brief

7. Applicant's appeal brief filed on 2/14/05 have been fully considered but are moot in view of the new ground(s) of rejection.

a. Appellant argues that Robinson does not teach or suggest a device for indicating which of a plurality of different protocols is being transferred between a vehicle network and an external computer. Examiner respectfully disagrees. As Robinson notes at col.1, line 59-col.2, line 39, discloses the method and apparatus of the present invention provide a means to detect the type of diagnostic tool that is requesting information from the vehicle controller and configuring the vehicle controller to communicate with the diagnostic tool. Each specific diagnostic tool having a specific communication link and format. This specific communication link is for specific protocol and to detect the type of diagnostic tool implies indication of which protocol of each

diagnostic tool has been used. It reads on the breadth of the claimed languages therefore it is properly stated in the rejection of record.

b. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Examiner relies on Abudayyeh's reference the teaching of the device includes at least one LED to visually indicate activity on the RS232 bus between the adapter and the computer for combination. As Abudayyeh notes at (col.4, line 61-col.5, line 13), discloses sensor circuit 206 detects a data transfer activity on bus, it generates a pulse and outputs such pulse in a signal to LED transform circuit. Upon receiving the signal generated by activity sensor circuit, LED regulates the waveform in accordance to the provide the regulated signal to LED circuit for display. In that (col.1,lines 5-10) using indicator circuits(LED) to indicate the transaction activity signals on the system, it is clear that Abudayyeh is analogous art and therefore properly combinable for the purpose stated in the rejection of record.

c. Appellant argues that Chaloux does not teach or suggest illuminating a particular LED to provide a visual indication of which of a plurality of different protocols are being used. Examiner respectfully disagrees. As Chaloux notes at (col.1, lines 61-

63) discloses the present invention is to provide an easy-to-use device for detecting and identifying the type of protocols. A counter counts the number of cycles in the difference signal during each pulse and outputs a logic signal one of lines S, M and L. The signal pulses are detected by LED. The protocol analyzer identifies identification signals to a display by LED (col.4, lines 26-61) . It reads on the breadth of the claimed languages therefore it is properly stated in the rejection of record.

d. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Examiner relies on Stroth's reference the teaching of wherein the plurality of LEDs include at least one dual-color LED for combination. As Stroth notes at [0094], discloses that it was known to use dual color LEDs to indicate different test result in test device. In that [0021] Stroth's purpose is to provide a tool for testing device that includes separate units. It would have been obvious to one having ordinary skills in the art at the time the invention was made incorporate Stroth's teaching into Robison's system in order to display additional information when conducting a test. It is clear that Stroth is analogous art and therefore properly combinable for the purpose stated in the rejection of record.

Conclusion

8. *Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kim Huynh whose telephone number is (571)272-3635 or via e-mail addressed to [kim.huynh3@uspto.gov]. The examiner can normally be reached on M-F 9.00AM- 6:00PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached at (571)272-3632 or via e-mail addressed to [mark.Rinehart@uspto.gov].*

The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9306 for regular communications and After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571)272-2100.

Kim Huynh

May 2, 2005

TIM VO
PRIMARY EXAMINER